

REMARKS

The present invention relates to a process for the preparation of a stimulable rare earth phosphor.

In the Office Action of May 17, 2005, claims 1-5 and 7-11 were rejected, while claims 6 and 12 were objected to but indicated as being allowable if properly rewritten. Claims 1-5 and 7-11 were rejected under 35 U.S.C. 103(a) based on U.S. Patent 4,931,312 (de Leeuw et al). Furthermore, claims 5, 6, 11 and 12 were objected to, with the Examiner suggesting amending said claims to more specifically indicate the relationships to the claim on which they depend.

In the present amendment, independent claims 1 and 7 have been amended to more specifically define the process for preparation of the stimulable phosphor and the characteristics thereof. In this regard, the Examiner's attention is directed to the specification, e.g., at page 1, lines 9-19, page 30, line 22, etc.

Furthermore, claims 5, 6, 11 and 12 have been amended responsive to the Examiner's suggestions for amending these claims with respect to the relationship to the claims on which they depend.

In view of these amendments and the remarks set forth below, Applicants respectfully submit that all of claims 1-12 are now in condition for allowance.

The de Leeuw et al reference teaches forming phosphors, such as Y_2SiO_5 activated with an effective amount of Tb or Ce, by dissolving yttrium acetate in an alcohol, adding tetraethoxysilane, bringing water into contact with the mixture to form a gel, and then thermally decomposing the gel to form the phosphor. The de Leeuw et al reference teaches the use of alcohol generally. The de Leeuw et al reference does not teach heating the mixture of yttrium acetate and the alcohol or that the alcohol is an alkoxyalcohol.

Applicants note that claims 1 and 7 are amended herein so as to explicitly define the phosphor as "stimulable phosphor" and further to define that the thermal decomposition in the last step is performed under reductive atmosphere.

Applicants would like to point out that the phosphor produced in accordance with the present invention is a stimulable phosphor having specific performance and that it is prepared by the process comprising the first step of heating the rare earth carboxylate and the alkoxyalcohol together and the last thermal decomposition step under reductive atmosphere.

In contrast, the phosphor film of the de Leeuw et al reference is for cathode ray tubes, which does not require the performance of a stimulable phosphor. In the process for preparing the phosphor film of the de Leeuw et al, no heating is applied to a solution of the rare earth carboxylate in ethanol, and the last thermal decomposition step does not require reductive

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